Buchanan County

Buchanan County Compton Mountain Broadband Project 2021

Application ID: 75708172020122738

Application Status: Pending

Program Name: Virginia Telecommunications Initiative 2021

Organization Name: Buchanan County

Organization Address: 1012 Walnut Street

Grundy, VA 24614-0950

Profile Manager Name:
Profile Manager Phone:
Profile Manager Email:

Project Name: Buchanan County Compton Mountain Broadband Project 2021

Project Contact Name: Scotty Wampler
Project Contact Phone: (276) 312-5033

Project Contact Email: scotty.wampler@buchanancounty-va.gov

Project Location: Loggy Bottom Road

Pilgrims Knob, VA 24634-9027

Project Service Area: Buchanan County

Total Requested Amount: \$998,670.00

Required Annual Audit Status: Pending Review

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Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
Telecommunications	\$998,670.00	\$249,667.00	\$1,248,337.00
Construction	\$998,670.00	\$249,667.00	\$1,248,337.00
Total:	\$998,670.00	\$249,667.00	\$1,248,337.00

Budget Narrative:

We are requesting \$998,670 which is 80% funding through the VATI grant program. The 20% match will be paid by Charter Communications. Charter is a publicly traded company and the second largest cable operator in the nation. Charter certainly has the financial wherewithal to meet their 20% obligation.

Questions and Responses:

1. Project Description and Need

Describe why and how the project area(s) was selected. Describe the proposed geographic area including specific boundaries of the project area (e.g. street names, local and regional boundaries, etc.). Attach a copy of the map of your project area(s). Label map: Attachment 1 – Project Area Map.

Answer:

Buchanan County has been designated a Rural County through the 2010 Census by the US Government Office of Management and Budget. We are submitting for a project known as Compton Mountain. This is an area of northeast Buchanan County and has rugged terrain and is located on the top of a mountain. This project would serve approximately 109 residential passings, two churches and an area water pump station. There is no other terrestrial provider serving this area. A map of this project showing the area of construction is attached.

2. List existing providers in the proposed project area and the speeds offered. Please do not include satellite. Describe your outreach efforts to identify existing providers and how this information was compiled with source(s).

Answer:

We do not believe there are any existing providers in this area. We made this determination by:

Physically inspecting all the roads in the anticipated service area.

We have looked at the FCC Broadband provider information for the anticipated service areas (see attached slides. We understand the flaw in using this data, which is if one location in the census block is reported to be served then entire service areas is considered served.

Looking at the individual project, there is another provider that is shown as meeting the 25/3 Mbps high Speed definition, but further due diligence shows they do not meet that speed:

•Compton Mountain

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oSunset Digital (1000/50 Mbps) is reported to provide service, however from visual inspection we have determined they do not offer service in this project area.

oViaSat (35/3 Mbps) is a satellite service that is not a reliable service with high latency.

oHughes Network Systems (25/3 Mbps) is a satellite service that is not a reliable service with high latency.

We know of no Wireless Internet Service Providers (WISP) in the area providing service in excess of 25/3 Mbps.

3. Describe if any areas near the project have received funding from federal grant programs, including but not limited to Connect America Funds II (CAF II), ACAM, ReConnect, and Community Connect. If there have been federal funds awarded near the project, provide a map verifying the proposed project area does not conflict with these areas. Describe if there are Rural Digital Opportunity Fund (RDOF) eligible census blocks located in the proposed project area. Label Map: Attachment 2 – Documentation on Federal Funding Area.

Answer:

We have looked at the CAF and CAF II maps (attached) for the anticipated service area and the proposed project is not in an eligible area for Federal funding.

We have looked at the census block data for the anticipated projects and compared it to 1) the list of FCC RDOF eligible census blocks. There are no eligible census blocks listed for Buchanan County and 2) a map of the FCC RDOF eligible areas (attached) shows that the anticipated service areas are not in the eligible areas for this Federal funding program.

4. Overlap: To be eligible for VATI, applicants must demonstrate that the proposed project area(s) is unserved. An unserved area is defined as an area with speeds of 25/3 mbps or less and with less than 10% service overlap within the project area. Describe any anticipated service overlap with current providers within the project area. Provide a detailed explanation as to how you determined the percentage overlap. Label Attachment: Attachment 3 – Documentation Unserved Area VATI Criteria.

Answer:

We have physically examined the anticipated service areas and reviewed federal broadband service provider reports. Based upon this inspection, we found no existing providers and therefore do not anticipate having any areas of overlapping service. We have received requests from residents to extend broadband service to this area.

- 5. Total Passings: Provide the number of total serviceable units in the project area. Applicants are encouraged to prioritize areas lacking 10 Megabits per second download and 1 Megabits per second upload speeds, as they will receive priority in application scoring. For projects with more than one service area, each service area must have delineated passing information. Label Attachment: Attachment 4 Passings Form
 - a. Of the total number of passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area. Describe the methodology used for these projections.
 - b. Provide the number of serviceable units in the project area that have 10/1 mbps or less. Describe the methodology used for these projections.

Answer:

See info chart.

6. For wireless projects only: Please explain the ownership of the proposed wireless infrastructure. Please describe

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if the private co-applicant will own or lease the radio mast, tower, or other vertical structure onto which the wireless infrastructure will be installed.

Answer:

n/a

7. Speeds: Describe the internet service offerings, including download and upload speeds, to be provided after completion of the proposed project. Detail whether that speed is based on dedicated or shared bandwidth, and detail the technology that will be used. This description can be illustrated by a map or schematic diagram, as appropriate. List the private co-applicant's tiered price structure for all speed offerings in the proposed project area, including the lowest tiered speed offering at or above 25/3 mbps.

Answer:

Charter offers various offerings at different speeds that the resident can choose from. These include:

Spectrum Internet 100/10 Spectrum Internet 100/10 with Wi-Fi Spectrum Internet Ultra 400/20 Spectrum Gigabit 940/35

8. Network Design: Provide a description of the network system design used to deliver broadband service from the network's primary internet point(s) of presence to end users, including the network components that already exist and the ones that would be added by the proposed project. Provide a detailed explanation of how this information was determined with sources. If using a technology with shared bandwidth, describe how the equipment will handle capacity during peak intervals. For wireless projects, provide a propagation map for the proposed project area with a clearly defined legend for scale of map. Label Map: Attachment 5 – Propagation Map Wireless Project.

Answer:

In general Charter's network includes three components: the national backbone, regional/metro networks and the "last-mile" network. Both Charter's national backbone and regional/metro network components utilize a redundant Internet Protocol ("IP") ring/mesh architecture with the capability to differentiate quality of service for each residential or commercial product offering.

Charter's last-mile network utilizes a traditional hybrid fiber coaxial cable (or "HFC") architecture, which combines the use of fiber optic cable with coaxial cable. In our Virginia system, we deliver our signals via fiber optic cable from the head end to a group of nodes, and use coaxial cable to deliver the signal from individual nodes to the homes served by that node. The design also provides two-way signal capacity for the addition of further interactive services.

Charter's HFC (Hybrid Fiber Coax) network design utilizes DOCSIS 3.1 to offer residential speeds as high as 1 Gig (940Mbps for download speed and 35Mbps for upload speed), advanced two-way video and digital phone all of which is upgradeable to support additional bandwidth and speeds. As the market demands faster speeds, Spectrum expects to continue to raise the minimum speed offered to its customers by continuing to upgrade our network based on the latest DOCSIS specifications.

For our fiber Internet, Ethernet, carrier wholesale, SIP and PRI commercial customers, fiber optic cable is extended from the individual nodes all the way to the customer's site. We believe that this hybrid network design provides high capacity and excellent signal quality.

9. Project Readiness

Describe the current state of project development, including but not limited to: planning, preliminary engineering, identifying easements/permits, status of MOU or MOA, and final design. Prepare a detailed project timeline or construction schedule, identifying specific tasks, staff, contractor(s) responsible, collection of data, etc., and estimated start and completion dates. Applicants must include Memorandums of Understanding (MOUs) or Memorandums of Agreement (MOAs) between applicants (drafts are allowable). Label Attachments: Attachment 6

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- Timeline/Project Management Plan; Attachment 7 - MOU/MOA between Applicant/Co-Applicant.

Answer:

This project was physically ridden out by our in-house construction staff. They are experienced in looking at such network expansions. They counted the number of existing passings, the mileage from the nearest network tie point and calculated the project cost. The cost is derived from years of company experience, internal (proprietary) template worksheets.

If the grant is awarded, this project would be designed, planned and overseen by our in-house Technical Operations team. The construction of the system would be completed by contractors, but managed by internal Charter employees.

Attached is a draft Memo of Understanding (MOU) between Charter Communication and the County which demonstrates our agreement to work in partnership.

If we are awarded the grant, we believe that construction of these projects can be completed within the required time frame. There are several steps that need to be taken in this process. Charter Communications shall complete the project in a timely manner, but is subject to excusable delay. Excusable delay means a delay to the construction of the project that affects completion and is directly caused by (1) make-ready work that is not received by Grantee within one (1) month of Grantee's submission of a proper application for utility pole attachments; or (2) any delay in receiving governmental, regulatory and third party permits, licenses and approvals, despite Grantee's good faith efforts to secure timely approvals, or (3) due to any reason beyond the Grantee's the reasonable control, but not limited to, acts of God or of a public enemy, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, or unusually severe weather.

For the Compton Mountain project we should be able to complete this within 18 months from the time of the award, again pending timely make ready work by the pole owner.

All easements and Right of Ways are in place, none need to be obtained. If this project is approved, we will apply for permits as needed. This is our standard operating procedure and is normal business for Charter. We are familiar and follow this process.

10. Matching funds: Complete the funding sources table indicating the cash match and in-kind resources from the applicant, co-applicant, and any other partners investing in the proposed project (VATI funding cannot exceed 80 percent of total project cost). In-kind resources include, but are not limited to: grant management, acquisition of rights of way or easements, waiving permit fees, force account labor, etc. Please note the a minimum 20% match is required to be eligible for VATI, the private sector provider must provide 10% of the required match. If the private co-applicant's cash match is below 10% of total project cost, applicants must provide financial details demonstrating appropriate private investment. Label Attachments: Attachment 8 - Funding Sources Table; Attachment 9 – Documentation of Match Funding.

Answer:

We are requesting \$998,670 which is 80% funding through the VATI grant program. The 20% match will be paid by Charter Communications.

Charter is a publicly traded company and the second largest cable operator in the nation. Charter certainly has the financial wherewithal to meet their 20% obligation. Attached is the 7/31/20 media release that provides details of Charter's financial position.

11. Leverage: Describe any leverage being provided by the applicant, co-applicant, and partner(s) in support of the proposed project.

Answer:

The County is leveraging this grant to expand broadband service to 112 County residents.

12. Marketing: Describe the broadband adoption plan.

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- a. Explain how you plan to promote customer take rate, including marketing activities, outreach plan, and other actions to reach the identified serviceable units within the project area. Provide the anticipated take rate and describe the basis for the estimate.
- b. Describe any digital literacy efforts to ensure residents and businesses in the proposed project area sufficiently utilize broadband. Please list any partnering organizations for digital literacy, such as the local library or cooperative extension office.

Answer:

Through our superior products and customer service, we strive every day to better serve our customers and give them the products and services they want. We offer straightforward, nationally-uniform pricing to customers with no data caps or usage-based pricing, no modem fees, and no early termination fees. We schedule one-hour appointment windows when our customers need at-home support, at times which work for them, including evenings and weekends.

Charter's Spectrum Internet Assist (SIA) is available to eligible households across the 41 states we serve. This low-cost broadband option for eligible families and seniors and offers speeds of 30 Mbps, which exceeds the FCC's definition of high-speed broadband. Helping bridge the digital divide for families through Spectrum Internet Assist is creating life-changing opportunities, allowing them to apply for jobs, complete homework or start their own businesses.

Spectrum Internet Assist is a low-cost, high-speed broadband service that provides new, qualifying households with internet service. Spectrum makes it simple for qualified households to sign up for low income Internet assistance.

- Free Internet modem
- High-speed Internet at 30 Mbps
- No data caps
- No contracts
- Optional in-home Wi-Fi service for an additional monthly fee

Requirements: One or more members of your household must be a recipient of one of the following assistance programs:

- National School Lunch Program (NSLP)
- Community Eligibility Provision (CEP) of the NSLP
- Supplemental Security Income (for applicants age 65+ only)

Over the past several months, the country has faced unprecedented challenges and uncertainty when it comes to dealing with even the most common, everyday situations. As the summer months come to an end and fall ushers in another school year, lawmakers, administrators and educators are grappling with decisions about how and where students will resume schooling. One of the biggest factors in deciding which approach is best—whether it is in-person schooling, online learning, or a hybrid approach—is whether students have the reliable Internet connectivity in their homes necessary to attend online classes and complete schoolwork.

To help address the lack of internet connectivity faced by some student households, Spectrum Enterprise has been working on an innovative solution to help get more households connected. Through their new Stay Connected K-12 program, the Spectrum Enterprise team will work directly with school districts across our footprint to assist them in offering high-speed, cable broadband Internet access to students, educators and staff in their homes. This partnership will ensure that learning, teaching, and working are uninterrupted by giving schools and districts the flexibility to add students to the program when needed, and provide much needed in-home connectivity, which includes:

- Internet download speeds up to 50 Mbps
- Unlimited Internet usage with no data caps or speed throttling
- Cable modem, Wi-Fi and self-installation kit provided at no cost
- Wireline connectivity with over 99.9% network reliability
- 24/7/365 technical support

Throughout the COVID-19 pandemic Charter has done our part to help to ease the strain on millions of Americans, including by connecting nearly 450,000 students, teachers, and their families to up to 100 Mbps or 200 Mbps broadband service for 60 days at no cost, keeping around 700,000 customers connected when they had a hard time paying bills because of COVID-related economic hardship, and forgiving approximately \$85 million in customers' overdue balances. Spectrum gave its front-line workers a raise during the pandemic and is in the process of permanently raising its minimum wage from \$15 to \$20 per hour. Our COVID-19 pandemic response was even recognized by

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Forbes as one of the best in the nation. Spectrum's Stay Connected K-12 program is another way we are doing our part to respond to the pandemic and support the communities we serve.

13. Project Management: Identify key individuals who will be responsible for the management of the project and provide a brief description of their role and responsibilities for the project. Present this information in table format. Provide a brief description of the applicant and co-applicant's history and experience with managing grants and constructing broadband communication facilities. Please attach any letters of support from stakeholders. If applicant is not a locality(s) in which the project will occur, please provide a letter of support from that locality. Attachment 10 – Letters of Support.

Answer:

Charter Communications is a connectivity company providing broadband, video, mobile, and voice services to over 30 million customers in 41 states under the brand name Spectrum. Our 95,000 employees work every day to deliver on our core business objective of providing superior products with great customer service. We're driving innovation and expanding access to broadband to ensure our customers receive the information and entertainment they want and need to succeed in today's hyper-connected world. Charter is continually investing in our network, our employees, and the communities we serve. Our key priorities include:

- •Building a highly skilled, locally based and diverse workforce
- •Investing in America's infrastructure
- Driving innovation
- Providing superior products and services at a better value
- 14. Project Budget and Cost Appropriateness

Budget: Applicants must provide a detailed budget that outlines how the grant funds will be utilized, including an itemization of equipment, construction costs, and a justification of proposed expenses. If designating more than one service area in a single application, each service area must have delineated budget information. For wireless projects, please include delineated budget information by each tower. Expenses should be substantiated by clear cost estimates. Include copies of vendor quotes or documented cost estimates supporting the proposed budget. Label Attachments: Attachment 11 – Derivation of Costs; Attachment 12 - Documentation of Supporting Cost Estimates.

Answer:

- Detailed narrative on how grant funds will be used 100% of the requested funds will be spent directly on the construction of broadband infrastructure in unserved areas of the County. They will not be used for marketing or operational costs.
- . Derivation of Costs

Charter's highly skilled internal construction team does the calculation based upon a physical drive out and their knowledge of the market place from years of experience.

- Documentation on supporting cost estimates
 Charter's internal and vendor costs for construction, labor and equipment are considered Charter proprietary information.
- 15. The cost benefit index is comprised of three factors: (i) state share for the total project cost, (ii) state cost per unit passed, and (iii) the internet speed. From these statistics, individual cost benefit scores are calculated and averaged together to create a point scale for a composite score. Provide the following:
 - a. Total VATI funding request

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- b. Number of serviceable units
- c. Highest residential speed available in proposed project area

Answer:

See info chart.

16. Commonwealth Priorities

Additional points will be awarded to proposed projects that reflect Commonwealth priorities. If applicable, describe the following:

- a. How the proposed project fits into a larger plan to achieve universal broadband coverage for the locality. Explain the remaining areas of need in the locality and a brief description of the plan to achieve universal broadband coverage.
- b. Businesses, community anchors, or other passings in the proposed project area that will have a significant impact on the locality or region because of access to broadband.
- c. Unique partnerships involved in the proposed project. Examples include electric utilities, universities, and federal/state agencies.
- d. Digital equity efforts to ensure low to moderate income households in the proposed project area will have affordable access to speeds at or above 25/3 mbps.

Answer:

- Details on how project fits in larger plan to achieve universal coverage
- Buchanan County has invested in several recent public-private partnerships with area broadband providers, including Charter, to expand the reach of high-speed Internet to previously unserved areas. These efforts have become more urgent in the wake of the COVID-19 pandemic, which has underscored the impact of school-age children being able to use virtual classroom tools. Still, some remote areas with population are incredibly difficult to reach, and we hope to accomplish reaching them by means of these and future partnerships.
- Significant businesses, community anchors or other passings in the project area
 This project will pass approximately 109 residential passings along with two churches and a local water pump station.
- · Details on unique partnerships

Charter's Enterprise Division has worked with many Governments, Schools, Universities, Hospitals and other institution in providing commercial video, Internet, data and telecommunications services.

Digital Equity efforts

Charter offers a Digital Education Grant Program. Charter's Spectrum Digital Education Grants help bridge the gap in digital literacy through grants, public service announcements (PSAs) and direct engagement by partnering with nonprofit organizations committed to educating their communities on the benefits of broadband and how it can be used to improve lives. Since 2017, Charter has award over \$1.5 million to nonprofit organizations.

17. Additional Information

17. Provide any other information that the applicant desires to include. Applicants are limited to four additional attachments.

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Label Additional Attachments as:

- a. Attachment 13 Two most recent Form 477 submitted to the FCC or equivalent
- b. Attachment 14 XXXXXXX
- c. Attachment 15 XXXXXXX
- d. Attachment 16 XXXXXXX
- e. Attachment 17 XXXXXXX

Answer:

n/a

Attachments:

Map(s) of project area, including proposed infrastructure

ProjectAreaMapComptonMt817202033604.pdf

Documentation of Federal Funding (CAF/ACAM/USDA, etc...) in and/or near proposed project area.

Documentation on Federal Funding Area CAFM ap 817202033655.pdf

Documentation that proposed project area is unserved based on VATI criteria

DocumentationUnservedAreaVATICriteriaComptonMt817202033710.pdf

Passings Form (Please use template provided)

PassingsForm817202033723.pdf

Timeline/Project Management Plan

ProjectPlanBuchananCoComptonMt817202034518.xlsx

MOU/MOA between applicant/co-applicant (can be in draft form)

MOUbetweenBuchananCoCharter817202033810.docx

Funding Sources Table

DocumentationofMatchFunding817202034556.pdf

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Buchanan County Compton Mountain Broadband Project 2021

Documentation for match funding

DocumentationofMatchFunding817202033931.pdf

Letters of Support

supportletter817202034031.pdf

Derivation of Cost (Project Budget)

ComptonMountainBuchananCoBOM817202035047.pdf

Documentation supporting project costs (e.g. vendor quotes)

ComptonMountainBuchananCoBOM817202034443.pdf

Two most recent Form 477 submitted to FCC

FCCForm477VAJune2019817202033853.xlsx

Optional

FCCForm477VADec2018817202033910.xlsx

Optional

DocumentationonFederalFundingAreaCAFIIMap817202034321.pdf

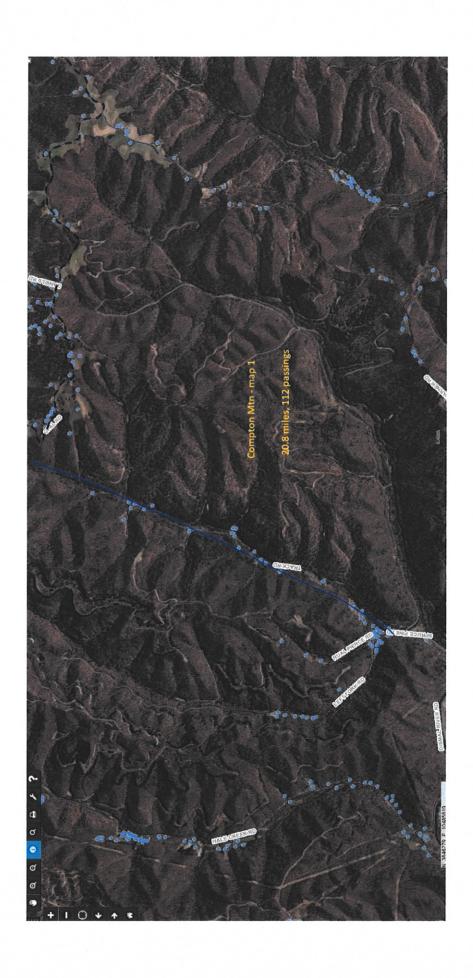
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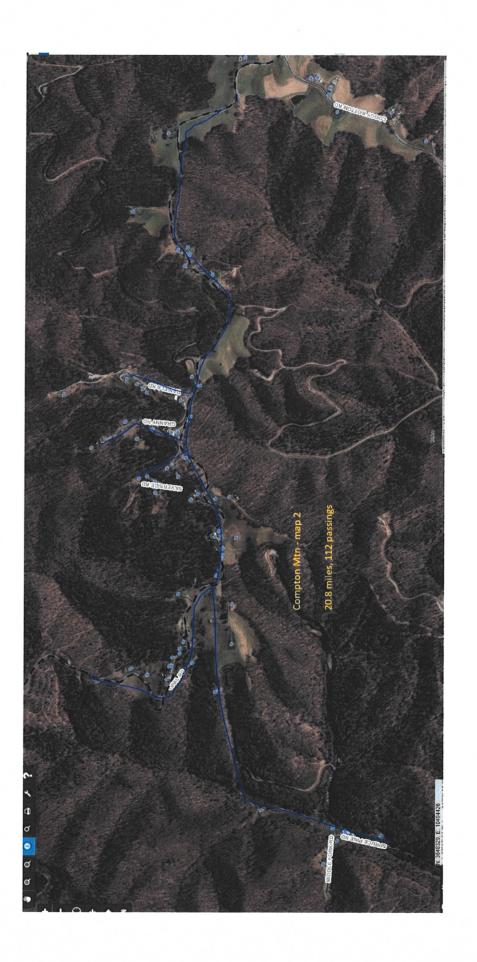
DocumentationonFederalFundingRDOFEligibleMap817202034339.pdf

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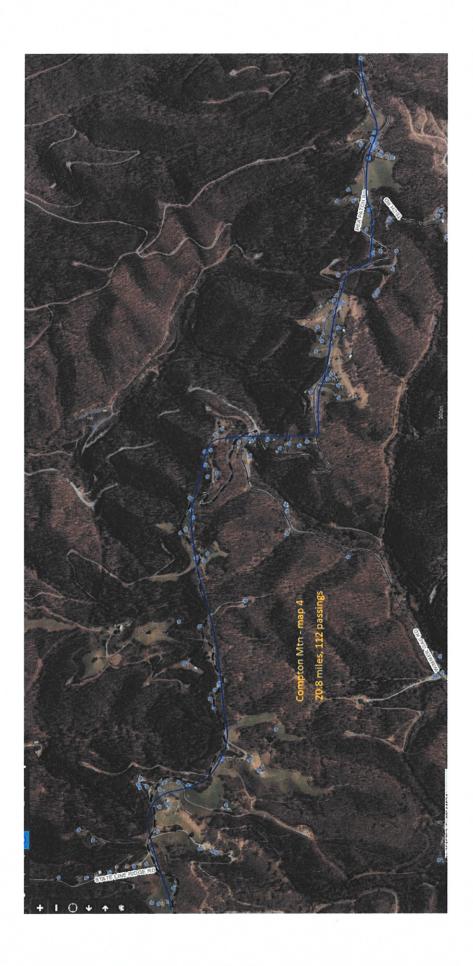
Charter2Q2020FinancialResultsRelease73120817202034411.pdf

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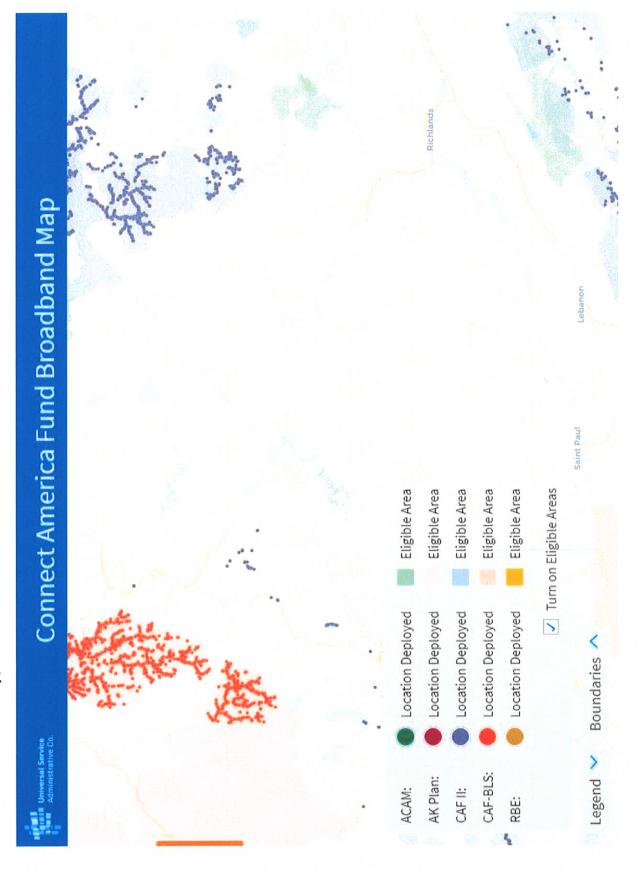








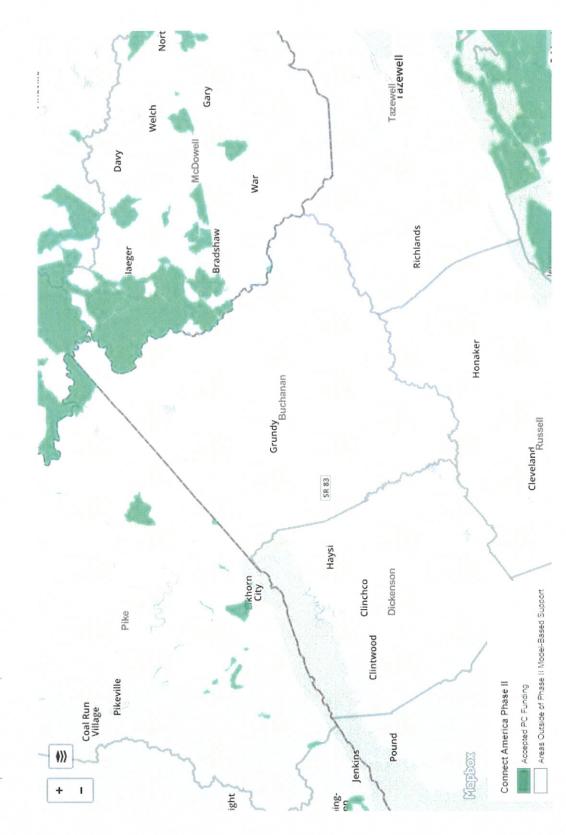
Buchanan County, VA



Buchanan County, VA

Connect America Fund Phase II

Accepted Areas Map



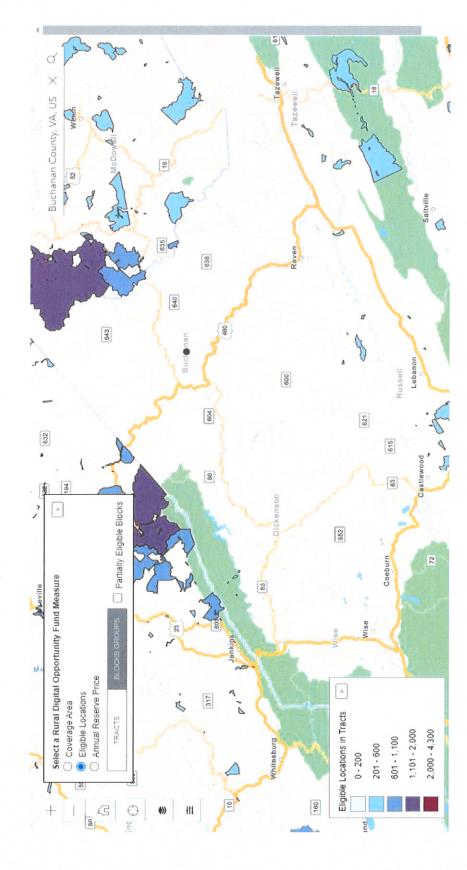
Buchanan County RDOF Eligible Areas



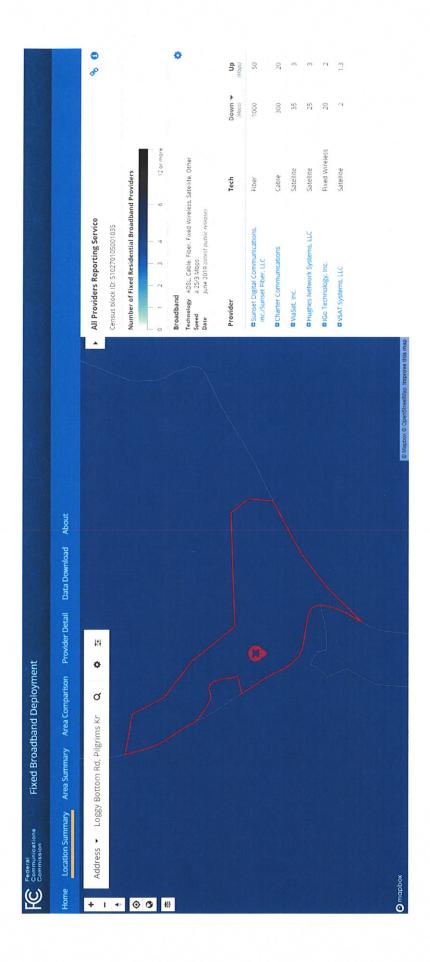
Home Reports & Research Maps

Auction 904 Initial Eligible Areas

Published on 3/17/20. An updated map was published on 6/25/20; see below for a link.



Compton Mountain Project



Buchanan County

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Buchanan County - Charter Communications

PROJECT: Compton Mountain

Task	Responsible Person	Responsible Entity	Prior	M1	M2	M3	M4	M5	M6
DHCD Awards Grant	Scotty Wampler	Buchanan Co							
Walkout	Pete Cronquist	Charter/ Spectrum							
Pole Application / Make Ready	Pete Cronquist	Charter/ Spectrum & AEP							
Mapping	Pete Cronquist	Charter/ Spectrum							
Design	Pete Cronquist	Charter/ Spectrum							
Permitting	Pete Cronquist	Charter/ Spectrum							
Construction	Pete Cronquist	Charter/ Spectrum							
Splicing	Pete Cronquist	Charter/ Spectrum							
Activation	Pete Cronquist	Charter/ Spectrum							
Customer Installation	Pete Cronquist	Charter/ Spectrum							
Project Close Out	Scotty Wampler	Buchanan Co							

M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19+

Agreement between Buchanan County, Virginia and Charter Communications Regarding VATI Funding

On {DATE}, the Virginia Department of Housing and Community Development ("DHCD") announced that it had offered Buchanan County (the "Grantee") a total of {AMOUNT} in funding under the Virginia Telecommunication Initiative (VATI) program in response to the joint application of Buchanan County and Charter Communications. Pursuant to the program guidelines and statutory authority, the primary objective of the VATI is to provide financial assistance to supplement construction costs by private sector broadband providers, in partnership with local units of government to extend service to areas that presently are unserved by any broadband provider.

The grant agreement, between DHCD and the County (the "DHCD Agreement") will impose certain responsibilities on the Grantee in accepting the VATI grant. As anticipated in the joint application for funding submitted by Buchanan County and Spectrum Southeast LLC ("Charter Communications"), the parties wish to outline the roles of each party now that the grant has been awarded. Accordingly, the parties now hereby agree as follows:

Charter Communications shall perform all work described in herein, the submitted application, project management schedule and budget. Specifically, Charter Communications shall complete all Grant Activities on or before {DATE}. Charter Communications shall indemnify, defend and hold the County harmless for any failure(s) (a) to complete any Grant Activities described in the DHCD Contract Documents on or before {DATE of Grant Expiration} and/or (b) to achieve any project Outcomes by {Date of Construction Conclusion Per Contract}, Charter Communications will provide information regarding number of homes passed, and speed packages offered, as well as speed validation data to ensure that the proposed Outcomes have been met and broadband speeds meet VATI criteria. Charter Communications will submit a {number of invoices if predetermined} invoice for payment upon completion of the work. No VATI funds shall be distributed unless and until (a) Charter Communications has submitted all requested documents and (b) the County has verified that pre-construction and/or construction work has been completed or equipment has been ordered and received.

Charter Communications shall retain all ownership rights in the network, materials, equipment, supplies and facilities that are part of this MOU. Provider reserves the

right to modify the terms and conditions, data usage, speeds and pricing associated with any of Grantee's services.

TERM: The term of the agreement shall commence on ______and ending on successful completion of all tasks as stated herein and contingent upon receiving sufficient funding from the Virginia Department of Housing and Community Developmental Services.

TERMINATION: The following provisions apply to termination under this Agreement, whether termination by the Grantee or by Charter Communications. The performance of work under this Agreement may be terminated in whole or in part for the following circumstances:

Termination for Convenience. This Agreement may be terminated by either party with thirty (30) days written notice. Said notice shall specify the reasons for requesting such termination. If the Grantee determines that continuation of the work will serve no useful public purpose, this Agreement may be terminated by the Grantee and Charter Communications shall be entitled to all eligible expenses incurred through the date of termination or the date services are last provided, whichever occurs first.

Termination for Cause. If, through any cause, Charter Communications shall fail to materially fulfill in a timely manner its obligations under this Agreement, or if Charter Communications shall violate any of the covenants, agreements or stipulations of this Agreement, and such failure or violation is not corrected within thirty (30) days after written notice is received by Charter Communications from the Grantee, the Grantee shall thereupon have the right

to immediately terminate or suspend this Agreement by giving written notice to Charter Communications of such termination or suspension and specifying the effective date thereof.

In their application, the parties estimated that {NUMBER OF UNITS} serviceable units will have access to the required broadband speeds. Tazewell County and Charter Communications will exercise due diligence and commercially reasonable efforts on community outreach and marketing the availability of service, which is the intent of the program. The parties understand, however, that the actual number of customers who choose to subscribe is beyond the parties' control. The parties also understand that the intent of the Department of Housing and Community Development is that the parties exercise due diligence and commercially reasonable efforts and that no funds will be returned to the Commonwealth nor retained by Tazewell County so long as the parties exercise due diligence and commercially reasonable efforts to reach the program goals.

Buchanan County and Charter Comr	nunications
Ву:	By:
{Local Signatory, Title}	{Provider Signatory, Title}
Date:	Date:

VATI Projects

Buchanan County

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Total Cost	Cost	Passings Labor Cost	Passings	Miles Miles	Miles	Miles	
o Madeiro Ma	Material			Total	DG	Aerial	

5.38	5.38	HPM		
	\$60,016	Mile	Cost /	
\$60,016 \$11,146	\$60,016 \$11,146	Passing	Cost /	
\$998,670	\$998,670	Grant	VATI	80 %
570	670	c÷		%

Cost /	80 % VATI	20 % Charter
Cost /	VATI Grant	Chart
assing	Grant	Match
\$11,146	\$998,670	\$249,667
311 115	6000 670	5000 667

INDUSTRIAL DEVELOPMENT AUTHORITY OF BUCHANAN COUNTY

August 14, 2020

Tamarah Holmes, Ph.D.
Director, DHCD Office of Broadband
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Letter of Support - Virginia Telecommunications Initiative (VATI) 2020 – Buchanan County application for Compton Mountain

Dear Dr. Holmes,

The Buchanan County Industrial Development Authority lends its full support to efforts by the Buchanan County Board of Supervisors and Charter-Spectrum to expand high-speed Internet access in the Compton Mountain section of Buchanan County.

The grant funding currently being sought by through the Virginia Telecommunications Initiative will be transformative for all those who would benefit in the Compton Mountain community, as well as other areas the expansion effort would reach in that section of Buchanan County. Our residents in this area are unserved by high-speed fiber, and the IDA resoundingly supports the effort.

Business recruitment is no longer a regional game; we compete with the rest of the globe for jobs and a skilled workforce. The lack of high-speed Internet availability at Compton Mountain withholds a key tool for us as economic and industrial developers to use to lure new business and industry to Buchanan County.

The Buchanan County IDA supports this grant application fully, and we hope you will give its approval the utmost consideration.

Sincerely,

Robert Craig Horn

Executive Director, Buchanan County IDA

Fallet C Hom

Compton Mountain Project - Charter Communications Bill of Materials

Type	Resource	-	Series	Model	Part No.	Total per node Total for project Cos	t per unit Total
AMPLIFIER	870_NEW		FEEDER	FM331TLC		8	
AMPLIFIER	870_NEW		FEEDER	FM331ALC		3	
AMPLIFIER	870_NEW		TRUNK	FMT901		3	
AMPLIFIER	870_NEW		TRUNK	FMB901		1	
AMPLIFIER	870_NEW		C-COR_NODES	OM4100		1	
COAXCABLE		COMMSCOPE		875P3		7732	
COAXCABLE		COMMSCOPE		625P3		11774	
COAXCABLE			COMMSCOPE_UPGRADE_0	NB_CO_P3_A_625		1098	
COAXCABLE			COMMSCOPE_UPGRADE_0	NB_CO_P3_U_625		428	
COAXCABLE			COMMSCOPE_UPGRADE_0	OL_CO_P3_A_875		359	
COAXCABLE	870_NEW	COMMSCOPE	COMMSCOPE_UPGRADE_0	OL_CO_P3_A_625		1458	
COAXCABLE	870_NEW	COMMSCOPE	COMMSCOPE_UPGRADE_0	RB_CO_P3_A_625		273	
COAXCABLE	870_NEW	COMMSCOPE	COMMSCOPE_UPGRADE_0	DR_CO_P3_A_625		371	
CONNECT	870_NEW	PPC		500P3		116	
CONNECT	870_NEW	CO		625P3		30	
CONNECT	870_NEW	PPC		750P3		24	
CONNECT	870_NEW	CO		875P3		2	
CONNECT		UKNMFG		HSE-HSE		19	
CONNECT		UKNMFG		HSE-TRM		16	
EQUAL	870_NEW	CCOR	MEQ42	2	2	6	
EQUAL	870_NEW	CCOR	MEQ42	3	3	6	
EQUAL	870_NEW	CCOR	MEQ42	4	4	2	
EQUAL	870_NEW		MEQ42		5	1	
EQUAL	870_NEW		SEQ-862			1	
EQUAL	870_NEW		SEQ-862			1	
FOUAL	870_NEW		SEQ-862		5	1	
EQUAL	870_NEW		SEQ-862	-		1	
EQUAL	870_NEW		SEQ-862			4	
EQUAL	870_NEW		SEQ-862	9		4	
EQUAL	870_NEW		SEO-862	10		2	
EQUAL			SCS-862	C2	J	1	
	870_NEW						
PADS	870_NEW		NPB	4		1	
PADS PADS	870_NEW		NPB NPB	5		5	
	870_NEW				5	3	
PADS	870_NEW		NPB	3		1	
PADS	870_NEW		NPB	8		3	
PADS	870_NEW		NPB	9		4	
PADS	870_NEW		NPB	10		8	
PADS	870_NEW		NPB	1:		2	
PADS	870_NEW		NPB	12		1	
PADS	870_NEW		NPB	13	3	2	
POWERINSERTER		ANTRONIX	TRUNK	MGPIH-2000		1	
COAXSPLITTER2WAY		ANTRONIX	FEEDER	MGDCH-2108F		6	
COAXSPLITTER2WAY		ANTRONIX	FEEDER	MGLSH-2F		2	
COAXSPLITTER2WAY	870_NEW		FPLUGINS	DC-8		1	
TAP		ANTRONIX	MGT 2200	MGT 2223		20	
TAP		ANTRONIX	MGT 2200	MGT 2220		7	
TAP		ANTRONIX	MGT 2200	MGT 2217		6	
TAP	870_NEW	ANTRONIX	MGT 2200	MGT 2214		9	
TAP		ANTRONIX	MGT 2200	MGT 2211		7	
TAP	870_NEW	ANTRONIX	MGT 2200	MGT 2208		2	
TAP	870_NEW	ANTRONIX	MGT 2200	MGT 2204		3	
TAP	870_NEW	ANTRONIX	MGT 2400	MGT 2423		2	
TAP	870_NEW	ANTRONIX	MGT 2400	MGT 2420		2	
TAP		ANTRONIX	MGT 2400	MGT 2414		4	
TAP		ANTRONIX	MGT 2400	MGT 2411		2	
TAP	870_NEW	ANTRONIX	MGT 2400	MGT 2408		1	
TAP		ANTRONIX	MGT 2800	MGT 2821		2	
Conduit	870_NEW		2" Conduit	Count		18480	
Fiber	870_NEW		144 count fiber	Fiber		9240	
Fiber splice case	870_NEW		D fiber splice case	Fiber tray		6	
PEDS	870_NEW		Ped 09IN x20IN LtGR B1Brkt Hasp w/Self Lock (TAP/SPLITTER PED	PED		27	
WIRE		Various	Lashing Wire	.038 lashing wire		32	
		Alpha	PS UPS XM3 1350 90V OUT 15A 120VIN 36VDC HP SAG	PS Module		1	
		Alpha	Enclosure PS 6 Batt UPE-6-240/120-20-BTB-UMB-LAP-BCK XM2/3	PS Housing		1	
		Alpha	Precast Pad			1	
		Alpha	Gel Cell Batteries			6	
		*					\$ 249,325.77



(RETAIN FOR YOUR RECORDS) Form 477 Filing Summary

FRN: 0025646373 Data as of: Dec 31, 2019 Operations: Non-ILEC Submission Status: Revised - Submitted Last Updated: Apr 29, 2020 17:23:24

Filer Identification

Section	Question	Response	
Filer Information	Company Name	Charter Communications, Inc.	
	Holding Company Name	Charter Communications	
	SAC ID		
	499 ID		
Data Contact Information	Data Contact Name	Denise J. Williams	
	Data Contact Phone Number	(214) 526-8397	
	Data Contact E-mail	denise.williams3@charter.com	
Emergency Operations Contact Information	Emergency Operations Name	Charter Network Operations Center	
	Emergency Operations Phone Number	(866) 248-7662	
	Emergency Operations E-mail	dlnoc@charter.com	
Certifying Official Contact Information	Certifying Official Name	Suzanne Curtis	
	Certifying Official Phone Number	(203) 905-7819	
	Certifying Official E-mail	suzanne.curtis@charter.com	

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	CH_477_DEPLOYMENT_04_29_2020_AMENDED_10.csv	Apr 29, 2020 13:51:37	239042
	CH_477_DEPLOYMENT_04_29_2020_AMENDED_9.csv	Apr 29, 2020 13:51:37	239043
	CH_477_DEPLOYMENT_04_29_2020_AMENDED_8.csv	Apr 29, 2020 13:51:36	239042
	CH_477_DEPLOYMENT_04_29_2020_AMENDED_7.csv	Apr 29, 2020 13:51:36	239043
	CH_477_DEPLOYMENT_04_29_2020_AMENDED_6.csv	Apr 29, 2020 13:51:36	239043
	CH_477_DEPLOYMENT_04_29_2020_AMENDED_5.csv	Apr 29, 2020 13:51:35	239042
	CH_477_DEPLOYMENT_04_29_2020_AMENDED_4.csv	Apr 29, 2020 13:51:35	239043
	CH_477_DEPLOYMENT_04_29_2020_AMENDED_3.csv	Apr 29, 2020 13:51:35	239042
	CH_477_DEPLOYMENT_04_29_2020_AMENDED_2,csv	Apr 29, 2020 13:51:34	239043
	CH_477_DEPLOYMENT_04_29_2020_AMENDED_1.csv	Apr 29, 2020 13:51:34	239043
Fixed Broadband Subscription	201912_TotalCompany477Internet.txt	Apr 29, 2020 13:18:40	381623



(RETAIN FOR YOUR RECORDS) Form 477 Filing Summary

FRN: 0025646373 Data as of: Jun 30, 2019 Operations: Non-ILEC Submission Status: Revised - Submitted Last Updated: May 4, 2020 16:13:12

Filer Identification

Section	Question	Response		
Filer Information	Company Name	Charter Communications, Inc.		
	Holding Company Name	Charter Communications		
	SAC ID			
	499 ID			
Data Contact Information	Data Contact Name	Denise J. Williams		
	Data Contact Phone Number	(214) 526-8397		
	Data Contact E-mail	denise.williams3@charter.com		
Emergency Operations Contact Information	Emergency Operations Name	Charter Network Operations Center		
	Emergency Operations Phone Number	(866) 248-7662		
	Emergency Operations E-mail	dlnoc@charter.com		
Certifying Official Contact Information	Certifying Official Name	Suzanne Curtis		
	Certifying Official Phone Number	(230) 905-7819		
	Certifying Official E-mail	suzanne.curtis@charter.com		

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	CH_COMBINED_477_DEPLOYMENT_DATA_FILING_UPDATE2_06_2019_9.csv	May 4, 2020 15:41:44	237582
	CH_COMBINED_477_DEPLOYMENT_DATA_FILING_UPDATE3_06_2019_10.csv	May 4, 2020 15:27:14	237582
	CH_COMBINED_477_DEPLOYMENT_DATA_FILING_UPDATE_06_2019_3.csv	May 4, 2020 14:24:45	237584
	CH_COMBINED_477_DEPLOYMENT_DATA_FILING_UPDATE_06_2019_4.csv	May 4, 2020 14:24:45	237584
	CH_COMBINED_477_DEPLOYMENT_DATA_FILING_UPDATE_06_2019_5.csv	May 4, 2020 14:24:45	237584
	CH_COMBINED_477_DEPLOYMENT_DATA_FILING_UPDATE_06_2019_1.csv	May 4, 2020 14:24:45	237584
	CH_COMBINED_477_DEPLOYMENT_DATA_FILING_UPDATE_06_2019_7.csv	May 4, 2020 14:24:45	237584





Charter Announces Second Quarter 2020 Results

Stamford, Connecticut - July 31, 2020 - Charter Communications, Inc. (along with its subsidiaries, the "Company" or "Charter") today reported financial and operating results for the three and six months ended June 30, 2020.

Key highlights:

- Second quarter total residential and SMB customer relationships¹ increased by 755,000, compared to 203,000 during the second quarter of 2019. Second quarter total residential and SMB Internet customers¹ increased by 850,000, compared to 258,000 during the second quarter of 2019.
- Charter added 325,000 *Spectrum Mobile*™ lines in the second quarter, and as of June 30, 2020, Charter served a total of 1.7 million mobile lines.
- Second quarter revenue of \$11.7 billion grew by 3.1% year-over-year, driven by residential revenue growth of 4.1%, mobile revenue growth of 96.1% and SMB revenue growth of 2.0%.
- Second quarter Adjusted EBITDA² of \$4.5 billion grew by 7.3% year-over-year, while second quarter cable Adjusted EBITDA² of \$4.6 billion grew by 6.7% year-over-year.
- Net income attributable to Charter shareholders totaled \$766 million in the second quarter, compared to \$314 million during the same period last year.
- Second quarter capital expenditures totaled \$1.9 billion and included \$125 million of mobile-related capital expenditures.
- Consolidated free cash flow² for the second quarter of 2020 totaled \$1.9 billion, compared to \$1.1 billion in 2019. Cable free cash flow² totaled \$2.1 billion for the second quarter of 2020, versus \$1.4 billion in 2019.
- During the second quarter, Charter purchased approximately 2.3 million shares of Charter Class A common stock and Charter Communications Holdings, LLC ("Charter Holdings") common units for approximately \$1.2 billion.

"Our ability to grow our services this year for new and existing customers, is a testament to our operating strategy, the quality of our products and our significant investment in systems and people over the last several years," said Tom Rutledge, CEO and Chairman of Charter Communications, Inc. "We continue to perform in a difficult and disruptive environment, and all of us at Charter are proud of our work in serving the communities in which we operate."

^{1.} Results include the impact of COVID-19 related offers and programs launched by Charter in the first quarter of 2020. See page 3 for additional information.

Adjusted EBITDA, cable Adjusted EBITDA, free cash flow and cable free cash flow are non-GAAP measures defined in the "Use of Adjusted EBITDA and Free Cash Flow Information" section and are reconciled to net income attributable to Charter shareholders and net cash flows from operating activities, respectively, in the addendum of this news release.

Key Operating Results

operating results	Approxim		
	June 30, 2020 (a)	June 30, 2019 (a)	Y/Y Change
Footprint (b)			
Estimated Passings	52,714	51,619	2.1 9
Penetration Statistics (c)			
Total Customer Relationship Penetration of Estimated Passings	57.8 %	55.5 %	2.3 ppt
Customer Relationships (d)			
Residential	28,496	26,755	6.5
Small and Medium Business	1,980	1,902	4.1
Total Customer Relationships	30,476	28,657	6.3
Quarterly Net Additions (Losses)	754	404	257.5
Residential Small and Medium Business	751 4	164 39	357.5 (90.5)
Total Customer Relationships	755	203	271.5
Residential			
Primary Service Units ("PSUs")	_		
Internet	26,313	24,244	8.5
Video	15,652	15,802	(0.9)
Voice	9,398	9,808	(4.2)
Quarterly Net Additions (Losses)			
Internet	842	221	280.8
Video	102	(150)	167.7
Voice	38	(207)	118.5
Single Play (e)	12,552	11,354	10.5
Double Play (e)	9,021	7,709	17.0
Triple Play (e)	6,923	7,692	(10.0)
Single Play Penetration (f)	44.0 %	42.4 %	1.6 pp
Double Play Penetration (f)	31.7 %	28.8 %	2.9 pp
Triple Play Penetration (f)	24.3 %	28.8 %	(4.5) pp
% Residential Non-Video Customer Relationships	45.1 %	40.9 %	4.2 pp
Monthly Residential Revenue per Residential Customer (g)	\$110.82	\$112.20	(1.2)
Small and Medium Business	_		
PSUs Internet	1,783	1,701	4.8
Video	516	518	(0.4)
Voice	1,169	1,097	6.5
Quarterly Net Additions (Losses)			
Internet	8	37	(79.6)
Video	(8)	9	(197.5)
Voice	7	25	(71.7)
Monthly Small and Medium Business Revenue per Customer (h)	\$166.06	\$170.42	(2.6)
Mobile Lines			
Residential and Small and Medium Business Mobile Lines	- 1,697	518	227.8
Net Additions	325	208	56.3
Enterprise PSUs (i)	_		
Enterprise PSUs	270	258	4.9
Net Additions	1	5	(75.3)

<u>Footnotes</u>

In thousands, except per customer and penetration data. See footnotes to unaudited summary of operating statistics on page 5 of the addendum of this news release. The footnotes contain important disclosures regarding the definitions used for these operating statistics.

All percentages are calculated using whole numbers. Minor differences may exist due to rounding.

Customers and Net Additions on COVID-19 Offers For the quarter ended June 30, 2020 (in thousands)

	Remote Education Offer (a)	_	Keep Americans Connected (b)	Seasonal Plan (c)	Total
Residential	_				_
Customer Relationships	160		208	n/a	368
Internet PSUs	160		202	n/a	362
Video PSUs	58	(d)) 148	n/a	206
Voice PSUs	46	(d)	90	n/a	136
Mobile Lines	10	(d)) 8	n/a	18
Quarterly Net Additions					
Customer Relationships	41		207	n/a	248
Internet PSUs	41		201	n/a	242
Video PSUs	12	(d)) 147	n/a	159
Voice PSUs	12	(d)	90	n/a	102
Mobile Lines	7	(d)) 8	n/a	15
Small and Medium Business	_				
Customer Relationships	n/a	l	14	13	27
Internet PSUs	n/a	l	13	11	24
Video PSUs	n/a	l	6	13	19
Voice PSUs	n/a	l	11	8	19
Mobile Lines	n/a	l	_	_	_
Quarterly Net Additions					
Customer Relationships	n/a	l	14	8	22
Internet PSUs	n/a	l	13	7	20
Video PSUs	n/a	l	6	11	17
Voice PSUs	n/a	l	11	5	16
Mobile Lines	n/a	l	_	_	_
Enterprise PSUs	_				
Enterprise PSUs	n/a	ı	1	9	10

- (a) The Remote Education Offer ("REO") represents residential customers receiving free Internet service by participating in Charter's free 60-day Internet offer available to households with K-12 and/or college students or educators who were not Spectrum Internet customers. This offer for new customers ended on June 30, 2020. These residential customers are generally eligible to purchase additional products and services (i.e. video, voice and mobile) at current promotional rates. Of the 448,000 Internet customers who were added as part of the REO through June 30, 2020 (of which 119,000 were added in March), 160,000 remained within their 60-day free period with 288,000 having rolled off the promotional period as of June 30, 2020. Nearly 90% of cumulative connects on the REO remained Internet customers as of July 27, 2020.
- (b) As part of our March 2020 pledge to the FCC which we extended through June 30, Keep Americans Connected ("KAC") represents customers who requested to not be disconnected from service due to COVID-19 related payment challenges and would have been disconnected under our normal collection policies during the pledge period. Approximately 600,000 residential customers and 100,000 SMB customers had requested protection from disconnection, of which at the peak of the program, 208,000 and 14,000, respectively, would have been disconnected under our normal collection policies. Approximately 30% of the KAC customer bills were current, and over 60% were making partial or full payments. In an effort to assist these COVID-19 impacted customers with overdue balances, Charter waived \$76 million of residential, \$6 million of SMB and \$3 million of mobile receivables, each of which were recorded as a reduction to revenue in the second quarter. These customers no longer have an overdue balance and will be subject to Charter's standard collection practices going forward.
- (c) Represents small and medium businesses and Enterprise hospitality customers who have requested a reduced level of service and now pay a reduced price for their service due to temporary business closure or because these customers have reduced their service offering to their own customers.
- (d) Customers who are receiving free Internet Service as part of the REO who have subscribed to products in addition to Spectrum Internet (i.e., video, voice, mobile) during the 60-day Free Internet Offer. Billings are not deferred for these additional services.

To assist communities impacted by the COVID-19 pandemic, in March, Charter launched its Remote Education Offer providing free Spectrum Internet® for 60 days to households with K-12 and/or college students as well as educators that did not already have Spectrum Internet service. This offer for new customers ended on June 30, 2020. The majority of customers that participated in the Remote Education Offer chose to be provided with Internet service at flagship speeds (i.e., 200 Mbps or 100 Mbps). Furthermore, as of June 30, 2020, nearly 50% of participants in the Remote Education Offer chose to subscribe to additional services (i.e., video, voice, mobile) from Charter, and were billed for these additional services. Charter also participated in the Federal Communication Commission's ("FCC") Keep Americans Connected Pledge through June 30, 2020, pausing disconnects and collection efforts for residential and SMB customers impacted by COVID-19. In an effort to assist these COVID-19 impacted customers with overdue balances, Charter waived \$76 million of residential, \$6 million of SMB and \$3 million of mobile receivables which were recorded as reductions to revenue in the second quarter of 2020. As a result, these customers no longer have overdue balances. Finally, Charter provided a seasonal plan at reduced rates to SMB and Enterprise customers that have temporarily closed or because these customers have reduced their service offerings to their own customers. The following discussion includes the impact of Charter's COVID-19 related offers and programs, which were generally provided up to June 30, 2020, on customer results and data. See page 3 for the total number of customers participating in these COVID-19 related offers and programs as of June 30, 2020.

During the second quarter of 2020, Charter's residential customer relationships grew by 751,000, while second quarter 2019 residential customer relationships grew by 164,000. As of June 30, 2020, Charter had 28.5 million residential customer relationships, with year-over-year growth of 1.7 million, or 6.5%.

Charter added 842,000 residential Internet customers in the second quarter of 2020, versus second quarter 2019 residential Internet customer net additions of 221,000. As of June 30, 2020, Charter had 26.3 million residential Internet customers, with over 85% subscribing to tiers that provided 100 Mbps or more of speed. Currently, 200 Mbps is the slowest speed offered to new *Spectrum Internet* customers in approximately 60% of Charter's footprint, with 100 Mbps the slowest speed offered in the remaining 40% of its footprint.

Residential video customers increased by 102,000 in the second quarter of 2020, while second quarter 2019 residential video customers decreased by 150,000. As of June 30, 2020, Charter had 15.7 million residential video customers.

During the second quarter of 2020, residential wireline voice customers increased by 38,000, while second quarter 2019 voice customers declined by 207,000. As of June 30, 2020, Charter had 9.4 million residential wireline voice customers.

Second quarter 2020 residential revenue per residential customer (excluding mobile) totaled \$110.82, and declined by 1.2% compared to the prior year period, given the waiver of overdue customer balances for customers offered protection following Charter's participation in the FCC's Keep Americans Connected Pledge, Charter's Remote Education Offer, a higher percentage of non-video customers and a higher mix of lower priced video packages within Charter's video customer base, partly offset by promotional rate step-ups and rate adjustments.

During the second quarter of 2020, Charter added 325,000 mobile lines, and as of June 30, 2020, Charter served a total of 1.7 million mobile lines. *Spectrum Mobile* is available to all new and existing *Spectrum Internet* customers and runs on America's most awarded LTE network combined with *Spectrum* WiFi. *Spectrum Mobile* customers can choose one of two simple ways to pay for data, "Unlimited" for \$45 a month (per line), or "By the Gig" at \$14/GB, in both cases including applicable fees and taxes. Earlier this year, *Spectrum Mobile* launched 5G service. Customers with a \$45/monthly unlimited data plan can use 5G phones to access 5G service at no additional cost in select cities nationwide.

SMB customer relationships grew by 4,000 during the second quarter of 2020, compared to growth of 39,000 during the second quarter of 2019. As of June 30, 2020, Charter had 2.0 million SMB customer relationships, with year-over-year growth of 4.1%. Enterprise PSUs grew by 1,000 during the second quarter of 2020 compared to growth of 5,000 during the second quarter of 2019. As of June 30, 2020, Charter had 270,000 enterprise PSUs, with growth of 4.9% year-over-year.

Second Quarter Financial Results

CHARTER COMMUNICATIONS, INC. AND SUBSIDIARIES UNAUDITED CONSOLIDATED STATEMENTS OF OPERATIONS AND OPERATING DATA (dollars in millions, except per share data)

	Three Months Ended June 30,				
	2020		2019	% Change	
REVENUES:					
Internet	\$ 4,530	\$	4,103	10.4 %	
Video	4,371		4,391	(0.4)%	
Voice	 451		489	(7.7)%	
Residential revenue	9,352		8,983	4.1 %	
Small and medium business	983		963	2.0 %	
Enterprise	 606		652	(7.1)%	
Commercial revenue	1,589		1,615	(1.7)%	
Advertising sales	249		395	(37.0)%	
Mobile	310		158	96.1 %	
Other	 196		196	— %	
Total Revenue	 11,696		11,347	3.1 %	
COSTS AND EXPENSES:					
Cable operating costs and expenses	6,794		6,885	(1.3)%	
Mobile operating costs and expenses	413		277	48.6 %	
Total operating costs and expenses	7,207		7,162	0.6 %	
Adjusted EBITDA	\$ 4,489	\$	4,185	7.3 %	
Adjusted EBITDA margin	38.4 %		36.9 %		
Cable Adjusted EBITDA	\$ 4,592	\$	4,304	6.7 %	
Cable Adjusted EBITDA margin	40.3 %		38.5 %		
Capital Expenditures	\$ 1,877	\$	1,597		
% Total Revenue	16.1 %		14.1 %		
Cable Capital Expenditures	\$ 1,752	\$	1,504		
% Total Cable Revenue	15.4 %		13.4 %		
Net income attributable to Charter shareholders	\$ 766	\$	314		
Earnings per common share attributable to Charter shareholders:					
Basic	\$ 3.72	\$	1.41		
Diluted	\$ 3.63	\$	1.39		
Net cash flows from operating activities	\$ 3,529	\$	2,761		
Free cash flow	\$ 1,866	\$	1,112		
Cable free cash flow	\$ 2,099	\$	1,409		

Revenues

Second quarter revenue increased by 3.1% year-over-year to \$11.7 billion, driven by growth in Internet, mobile and SMB. Excluding mobile, revenue grew by 1.8% year-over-year.

Residential revenue totaled \$9.4 billion in the second quarter, an increase of 4.1% year-over-year, despite \$76 million of customer receivables which Charter has waived to address past due balances for customers offered collection protection following Charter's participation in the FCC's Keep Americans Connected Pledge.

Internet revenue grew by 10.4% compared to the year-ago quarter, to \$4.5 billion, driven by growth in Internet customers during the last year, promotional rolloff and rate adjustments, partly offset by the aforementioned waiver of overdue customer balances.

Video revenue totaled \$4.4 billion in the second quarter, a decrease of 0.4% compared to the prior year period, driven by a decline in video customers during the last year, a higher mix of lower priced video packages within Charter's video customer base and the aforementioned waiver of overdue customer balances, partly offset by rate adjustments and promotional rolloff.

Voice revenue totaled \$451 million in the second quarter, a decrease of 7.7% compared to the second quarter of 2019, driven by a decline in wireline voice customers over the last twelve months and value-based pricing.

Commercial revenue declined to \$1.6 billion, a decrease of 1.7% over the prior year period, driven by a decline in enterprise revenue of 7.1%, partly offset by SMB revenue growth of 2.0%. SMB revenue in the second quarter was negatively impacted by \$17 million of COVID-19 related seasonal plans and receivables waived to address past due balances for customers offered collection protection following Charter's participation in the FCC's Keep Americans Connected Pledge. Excluding one-time COVID-19 related impacts, SMB revenue grew by 3.8% year-over-year reflecting lower SMB unit growth during the pandemic. Second quarter enterprise revenue was negatively impacted by Charter's sale of Navisite in the third quarter of 2019 and \$18 million of COVID-19 related hospitality customer credits. Excluding Navisite revenue from the second quarter of 2019 and one-time COVID-19 related impacts, commercial and enterprise revenue grew by 2.8% and 1.3% year-over-year, respectively.

Second quarter advertising sales revenue of \$249 million decreased by 37.0% compared to the year-ago quarter, driven by lower local and national sales due to the COVID-19 pandemic. Excluding political revenue in both periods, advertising sales revenue declined by 40.8% year-over-year.

Second guarter mobile revenue totaled \$310 million, an increase of 96.1% year-over-year.

Other revenue totaled \$196 million in the second quarter, in-line with the prior year.

Operating Costs and Expenses

Second quarter total operating costs and expenses increased by \$45 million, or 0.6% year-over-year. Excluding mobile costs in both periods, operating costs and expenses decreased by 1.3% compared to the year-ago quarter.

Second quarter programming costs increased by \$46 million, or 1.6% as compared to the second quarter of 2019, reflecting contractual programming increases and renewals, partly offset by lower video customers and a higher mix of lower cost video packages within Charter's video customer base.

Regulatory, connectivity and produced content expenses decreased by \$109 million, or 18.3% year-over-year, primarily driven by delayed sports rights costs.

Costs to service customers increased by \$81 million, or 4.6% year-over-year, despite year-over-year residential and SMB customer growth of 6.3%. In addition to customer growth and record transaction volume for new sales and service, the year-over-year increase in costs to service customers was driven by previously announced accelerated wage benefits for hourly field operations and call center employees and COVID-19 related flex time, partly offset by lower medical costs and a one-time payroll tax credit. While bad debt increased 5.0% year-over-year, bad debt in the second quarter benefited from the revenue reduction for Keep Americans Connected customers and better collections from other customers as a result of Federal stimulus under the CARES Act.

Marketing expenses decreased by \$49 million, or 6.3% year-over-year, primarily driven by better media placement rates and a one-time payroll tax credit.

Other expenses decreased by \$60 million, or 6.6% as compared to the second quarter of 2019 primarily driven by lower advertising sales expense, enterprise costs from the sale of Navisite, employee travel expense and insurance costs.

Second quarter mobile costs totaled \$413 million, an increase of 48.6% year-over-year, and were comprised of device costs, customer acquisition costs, and service and operating costs.

Adjusted EBITDA

Second quarter Adjusted EBITDA of \$4.5 billion grew by 7.3% year-over-year, reflecting growth in revenue and operating expenses of 3.1% and 0.6%, respectively. Second quarter cable Adjusted EBITDA grew by 6.7% year-over-year reflecting growth in cable revenue of 1.8% and a decline in cable operating expenses of 1.3%.

Net Income Attributable to Charter Shareholders

Net income attributable to Charter shareholders totaled \$766 million in the second quarter of 2020, compared to \$314 million in the second quarter of 2019. The year-over-year increase in net income attributable to Charter shareholders was primarily driven by higher Adjusted EBITDA, a non-cash gain on financial instruments in the current year period versus a loss in the prior year period and lower depreciation and amortization, partly offset by higher tax expense.

Net income per basic common share attributable to Charter shareholders totaled \$3.72 in the second quarter of 2020 compared to \$1.41 during the same period last year. The increase was primarily the result of the factors described above in addition to a 7.5% decrease in weighted average common shares outstanding versus the prior year period.

Capital Expenditures

Property, plant and equipment expenditures totaled \$1.9 billion in the second quarter of 2020, compared to \$1.6 billion during the second quarter of 2019, primarily driven by increases in scalable infrastructure, line extensions and Internet CPE. The year-over-year increase in scalable infrastructure spending was primarily due to core network enhancements and node splits to maintain excess network capacity with growing customers and traffic. The increase in line extensions was driven by continued network expansion, including to rural areas. The increase in Internet CPE spending was due to higher Internet customer growth. Second quarter capital expenditures included \$125 million of mobile costs, most of which are included in support capital.

Charter currently expects 2020 cable capital expenditures to decline as a percentage of cable revenue versus 2019.

Cash Flow and Free Cash Flow

During the second quarter of 2020, net cash flows from operating activities totaled \$3.5 billion, compared to \$2.8 billion in the prior year quarter. The year-over-year increase in net cash flows from operating activities was primarily due to higher Adjusted EBITDA and a favorable change in working capital.

Consolidated free cash flow for the second quarter of 2020 totaled \$1.9 billion, compared to \$1.1 billion during the same period last year. Cable free cash flow for the second quarter of 2020 totaled \$2.1 billion, compared to \$1.4 billion during the same period last year. The year-over-year increases in consolidated free cash flow and cable free cash flow were driven by an increase in net cash flows from operating activities.

Liquidity & Financing

As of June 30, 2020, total principal amount of debt was \$77.8 billion and Charter's credit facilities provided approximately \$4.7 billion of additional liquidity in excess of Charter's \$2.1 billion cash position.

In April 2020, Charter Communications Operating, LLC and Charter Communications Operating Capital Corp. issued \$1.6 billion of 2.800% senior secured notes due 2031 and \$1.4 billion of 3.700% senior secured notes due 2051. The proceeds were used to pay related fees and expenses and for general corporate purposes.

In June 2020, Charter Communications Operating, LLC and Charter Communications Operating Capital Corp. redeemed all of their 3.579% senior secured notes due July 2020.

In July 2020, CCO Holdings, LLC ("CCO Holdings") and CCO Holdings Capital Corp. issued \$3.0 billion of 4.250% senior unsecured notes due 2031. The proceeds will be used to pay related fees and expenses and for general corporate purposes, including repaying certain indebtedness, including all of CCO Holdings' 5.875% senior notes due 2024, as well as funding buybacks of Charter Class A common stock and/or Charter Holdings common units.

Share Repurchases

During the three months ended June 30, 2020, Charter purchased approximately 2.3 million shares of Charter Class A common stock and Charter Holdings common units for approximately \$1.2 billion.

Conference Call

Charter will host a conference call on Friday, July 31, 2020 at 8:30 a.m. Eastern Time (ET) related to the contents of this release.

The conference call will be webcast live via the Company's investor relations website at <u>ir.charter.com</u>. The call will be archived under the "Financial Information" section two hours after completion of the call. Participants should go to the webcast link no later than 10 minutes prior to the start time to register.

Those participating via telephone should dial 866-919-0894 no later than 10 minutes prior to the call. International participants should dial 706-679-9379. The conference ID code for the call is 5936339.

A replay of the call will be available at 855-859-2056 or 404-537-3406 beginning two hours after the completion of the call through the end of business on August 14, 2020. The conference ID code for the replay is 5936339.

Additional Information Available on Website

The information in this press release should be read in conjunction with the financial statements and footnotes contained in the Company's Quarterly Report on Form 10-Q for the three and six months ended June 30, 2020, which will be posted on the "Financial Information" section of our investor relations website at ir.charter.com, when it is filed with the Securities and Exchange Commission (the "SEC"). A slide presentation to accompany the conference call and a trending schedule containing historical customer and financial data will also be available in the "Financial Information" section.

Use of Adjusted EBITDA and Free Cash Flow Information

The company uses certain measures that are not defined by U.S. generally accepted accounting principles ("GAAP") to evaluate various aspects of its business. Adjusted EBITDA and free cash flow are non-GAAP financial measures and should be considered in addition to, not as a substitute for, net income attributable to Charter shareholders and net cash flows from operating activities reported in accordance with GAAP. These terms, as defined by Charter, may not be comparable to similarly titled measures used by other companies. Adjusted EBITDA and free cash flow are reconciled to net income attributable to Charter shareholders and net cash flows from operating activities, respectively, in the Addendum to this release.

Adjusted EBITDA is defined as net income attributable to Charter shareholders plus net income attributable to noncontrolling interest, net interest expense, income taxes, depreciation and amortization, stock compensation expense, loss on extinguishment of debt, (gain) loss on financial instruments, net, other pension (benefits) costs, net, other (income) expense, net and other operating (income) expenses, such as special charges and (gain) loss on sale or retirement of assets. As such, it eliminates the significant non-cash depreciation and amortization expense that results from the capital-intensive nature of the Company's businesses as well as other non-cash or special items, and is unaffected by the Company's capital structure or investment activities. However, this measure is limited in that it does not reflect the periodic costs of certain capitalized tangible and intangible assets used in generating revenues and the cash cost of financing. These costs are evaluated through other financial measures.

Free cash flow is defined as net cash flows from operating activities, less capital expenditures and changes in accrued expenses related to capital expenditures.

Management and Charter's board of directors use Adjusted EBITDA and free cash flow to assess Charter's performance and its ability to service its debt, fund operations and make additional investments

with internally generated funds. In addition, Adjusted EBITDA generally correlates to the leverage ratio calculation under the Company's credit facilities or outstanding notes to determine compliance with the covenants contained in the facilities and notes (all such documents have been previously filed with the the SEC). For the purpose of calculating compliance with leverage covenants, the Company uses Adjusted EBITDA, as presented, excluding certain expenses paid by its operating subsidiaries to other Charter entities. The Company's debt covenants refer to these expenses as management fees, which were \$308 million and \$619 million for the three and six months ended June 30, 2020, respectively, and \$299 million and \$599 million for the three and six months ended June 30, 2019, respectively.

Cable Adjusted EBITDA is defined as Adjusted EBITDA less mobile revenues plus mobile operating costs and expenses. Cable free cash flow is defined as free cash flow plus mobile net cash outflows from operating activities and mobile capital expenditures. Management and Charter's board of directors use cable Adjusted EBITDA and cable free cash flow to provide management and investors a more meaningful year-over-year perspective on the financial and operational performance and trends of our core cable business without the impact of the revenue, costs and capital expenditures in the initial funding period to grow a new product line as well as the negative working capital impacts from the timing of device-related cash flows when we sell the handset or tablet to customers pursuant to equipment installment plans.

About Charter

Charter Communications, Inc. (NASDAQ:CHTR) is a leading broadband connectivity company and cable operator serving more than 30 million customers in 41 states through its Spectrum brand. Over an advanced communications network, the company offers a full range of state-of-the-art residential and business services including Spectrum Internet®, TV, Mobile and Voice.

For small and medium-sized companies, Spectrum Business® delivers the same suite of broadband products and services coupled with special features and applications to enhance productivity, while for larger businesses and government entities, Spectrum Enterprise provides highly customized, fiber-based solutions. Spectrum Reach® delivers tailored advertising and production for the modern media landscape. The company also distributes award-winning news coverage, sports and high-quality original programming to its customers through Spectrum Networks and Spectrum Originals. More information about Charter can be found at corporate.charter.com.

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This communication includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, regarding, among other things, our plans, strategies and prospects, both business and financial. Although we believe that our plans, intentions and expectations as reflected in or suggested by these forward-looking statements are reasonable, we cannot assure you that we will achieve or realize these plans, intentions or expectations. Forward-looking statements are inherently subject to risks, uncertainties and assumptions including, without limitation, the factors described under "Risk Factors" from time to time in our filings with the SEC. Many of the forward-looking statements contained in this communication may be identified by the use of forward-looking words such as "believe," "expect," "anticipate," "should," "planned," "will," "may," "intend," "estimated," "aim," "on track," "target," "opportunity," "tentative," "positioning," "designed," "create," "predict," "project," "initiatives," "seek," "would," "could," "continue," "ongoing," "upside," "increases," "focused on" and "potential," among others. Important factors that could cause actual results to differ materially from the forward-looking statements we make in this communication are set forth in our annual report on Form 10-K, and in other reports or documents that we file from time to time with the SEC, and include, but are not limited to:

- the impact of the COVID-19 pandemic on the economy, our customers, our vendors, local, state and federal governmental responses to the pandemic and our businesses generally;
- our ability to sustain and grow revenues and cash flow from operations by offering Internet, video, voice, mobile, advertising and other services to residential and commercial customers, to adequately meet the customer experience demands in our service areas and to maintain and grow our customer base, particularly in the face of increasingly aggressive competition, the need for innovation and the related capital expenditures;
- the impact of competition from other market participants, including but not limited to incumbent telephone companies, direct broadcast satellite ("DBS") operators, wireless broadband and telephone providers, digital subscriber line ("DSL") providers, fiber to the home providers and providers of video content over broadband Internet connections;
- our ability to obtain programming at reasonable prices or to raise prices to offset, in whole or in part, the effects of higher programming costs (including retransmission consents);
- our ability to develop and deploy new products and technologies including mobile products and any other consumer services and service platforms;
- any events that disrupt our networks, information systems or properties and impair our operating activities or our reputation;
- the effects of governmental regulation on our business including costs, disruptions and possible limitations on operating flexibility related to, and our ability to comply with, regulatory conditions applicable to us as a result of the Time Warner Cable Inc. and Bright House Networks, LLC Transactions;
- general business conditions, economic uncertainty or downturn, including the impacts of the COVID-19 pandemic to unemployment levels and the level of activity in the housing sector;
- the ability to retain and hire key personnel;
- the availability and access, in general, of funds to meet our debt obligations prior to or when they become due and to fund our operations and necessary capital expenditures, either through (i) cash on hand, (ii) free cash flow, or (iii) access to the capital or credit markets; and
- our ability to comply with all covenants in our indentures and credit facilities, any violation of which, if not cured in a timely manner, could trigger a default of our other obligations under cross-default provisions.

All forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by this cautionary statement. We are under no duty or obligation to update any of the forward-looking statements after the date of this communication.

CHARTER COMMUNICATIONS, INC. AND SUBSIDIARIES UNAUDITED CONSOLIDATED STATEMENTS OF OPERATIONS AND OPERATING DATA (dollars in millions, except per share data)

	Three Months Ended June 30,			Six Mo	nths Ended June	e 30,
	2020	2019	% Change	2020	2019	% Change
REVENUES:						
Internet	\$ 4,530	\$ 4,103	10.4 %	\$ 8,937	\$ 8,127	10.0 %
Video	4,371	4,391	(0.4)%	8,793	8,775	0.2 %
Voice	451	489	(7.7)%	908	993	(8.6)%
Residential revenue	9,352	8,983	4.1 %	18,638	17,895	4.2 %
Small and medium business	983	963	2.0 %	1,979	1,908	3.7 %
Enterprise	606	652	(7.1)%	1,228	1,295	(5.2)%
Commercial revenue	1,589	1,615	(1.7)%	3,207	3,203	0.1 %
Advertising sales	249	395	(37.0)%	614	740	(17.1)%
Mobile	310	158	96.1 %	568	298	90.9 %
Other	196	196	— %	407	417	(2.3)%
Total Revenue	11,696	11,347	3.1 %	23,434	22,553	3.9 %
COSTS AND EXPENSES:						
Programming	2,873	2,827	1.6 %	5,765	5,692	1.3 %
Regulatory, connectivity and produced content	488	597	(18.3)%	1,039	1,158	(10.3)%
Costs to service customers	1,848	1,767	4.6 %	3,696	3,589	3.0 %
Marketing	719	768	(6.3)%	1,485	1,503	(1.2)%
Mobile	413	277	48.6 %	787	537	46.6 %
Other expense	866	926	(6.6)%	1,777	1,834	(3.1)%
Total operating costs and expenses (exclusive of items shown separately below)	7,207	7,162	0.6 %	14,549	14,313	1.7 %
Adjusted EBITDA	4,489	4,185	7.3 %	8,885	8,240	7.8 %
Adjusted EBITDA margin	38.4 %	36.9 %		37.9 %	36.5 %	
Depreciation and amortization	2,428	2,500		4,925	5,050	
Stock compensation expense	90	82		180	167	
Other operating expenses, net	2	62		9	57	
Income from operations	1,969	1,541		3,771	2,966	
OTHER INCOME (EXPENSES):						
Interest expense, net	(957)	(945)		(1,937)	(1,870)	
Loss on extinguishment of debt	(36)	_		(63)	_	
Gain (loss) on financial instruments, net	64	(119)		(254)	(82)	
Other pension benefits, net	11	9		21	18	
Other expense, net	(9)	(16)		_	(126)	
	(927)	(1,071)		(2,233)	(2,060)	
Income before income taxes	1,042	470		1,538	906	
Income tax expense	(166)	(84)		(195)	(203)	
Consolidated net income	876	386		1,343	703	
Less: Net income attributable to noncontrolling interests	(110)	(72)		(181)	(136)	
Net income attributable to Charter shareholders	\$ 766	\$ 314		\$ 1,162	\$ 567	
EARNINGS PER COMMON SHARE ATTRIBUTABLE TO CHARTER SHAREHOLDERS:						
Basic	\$ 3.72	\$ 1.41		\$ 5.62	\$ 2.54	
Diluted	\$ 3.63	\$ 1.39		\$ 5.48	\$ 2.50	
Weighted average common shares outstanding, basic	205,777,438	222,392,274		206,804,371	223,505,016	
Weighted average common shares outstanding, diluted	210,906,946	225,942,172		212,158,218	226,889,745	

Adjusted EBITDA is a non-GAAP term. See page 8 of this addendum for the reconciliation of Adjusted EBITDA to net income attributable to Charter shareholders as defined by GAAP.

All percentages are calculated using whole numbers. Minor differences may exist due to rounding.

CHARTER COMMUNICATIONS, INC. AND SUBSIDIARIES CONDENSED CONSOLIDATED BALANCE SHEETS (dollars in millions)

	June 30, 2020	December 31, 2019
ASSETS	(unaudited)	
CURRENT ASSETS:		
Cash and cash equivalents	\$ 2,097	\$ 3,483
Accounts receivable, net	1,994	2,227
Prepaid expenses and other current assets	674	
Total current assets	4,765	6,471
RESTRICTED CASH	5	66
INVESTMENT IN CABLE PROPERTIES:		
Property, plant and equipment, net	34,074	34,591
Customer relationships, net	6,486	7,453
Franchises	67,322	67,322
Goodwill	29,554	29,554
Total investment in cable properties, net	137,436	138,920
OTHER NONCURRENT ASSETS	2,930	2,731
Total assets	\$ 145,136	\$ 148,188
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable and accrued liabilities	\$ 8,436	\$ 8,885
Current portion of long-term debt	706	3,500
Total current liabilities	9,142	12,385
LONG-TERM DEBT	77,663	75,578
DEFERRED INCOME TAXES	17,789	17,711
OTHER LONG-TERM LIABILITIES	4,141	3,703
SHAREHOLDERS' EQUITY:		
Controlling interest	29,356	31,445
Noncontrolling interests	7,045	7,366
Total shareholders' equity	36,401	38,811
Total liabilities and shareholders' equity	\$ 145,136	\$ 148,188

CHARTER COMMUNICATIONS, INC. AND SUBSIDIARIES UNAUDITED CONSOLIDATED STATEMENTS OF CASH FLOWS (dollars in millions)

	Three Months Ended June 30,			Six Months Ended June 30,			
		2020		2019	2020		2019
CASH FLOWS FROM OPERATING ACTIVITIES:							
Consolidated net income	\$	876	\$	386	\$ 1,343	\$	703
Adjustments to reconcile consolidated net income to net cash flows from operating activities:							
Depreciation and amortization		2,428		2,500	4,925		5,050
Stock compensation expense		90		82	180		167
Noncash interest income, net		(9)		(17)	(21)		(72)
Other pension benefits, net		(11)		(9)	(21)		(18)
Loss on extinguishment of debt		36		_	63		_
(Gain) loss on financial instruments, net		(64)		119	254		82
Deferred income taxes		115		56	101		137
Other, net		3		53	(17)		151
Changes in operating assets and liabilities, net of effects from acquisitions and dispositions:							
Accounts receivable		97		(492)	233		(337)
Prepaid expenses and other assets		(60)		124	(164)		(176)
Accounts payable, accrued liabilities and other		28		(41)	(127)		(240)
Net cash flows from operating activities		3,529		2,761	6,749		5,447
CASH FLOWS FROM INVESTING ACTIVITIES:							
Purchases of property, plant and equipment		(1,877)		(1,597)	(3,338)		(3,262)
Change in accrued expenses related to capital expenditures		214		(52)	(174)		(428)
Real estate investments through variable interest entities		(43)		(25)	(81)		(64)
Other, net		(45)		8	(8)		8
Net cash flows from investing activities		(1,751)		(1,666)	(3,601)		(3,746)
CASH FLOWS FROM FINANCING ACTIVITIES:							
Borrowings of long-term debt		2,983		3,830	7,322		10,714
Repayments of long-term debt		(4,303)		(4,551)	(7,892)		(10,123)
Payments for debt issuance costs		(21)		(7)	(62)		(32)
Issuance of equity		_		_	23		_
Purchase of treasury stock		(1,155)		(861)	(3,507)		(1,801)
Proceeds from exercise of stock options		28		37	121		81
Purchase of noncontrolling interest		(125)		(161)	(518)		(254)
Distributions to noncontrolling interest		(38)		(39)	(77)		(78)
Borrowings for real estate investments through variable interest entities		24		_	24		_
Distributions to variable interest entities noncontrolling interest		(4)		_	(4)		_
Other, net		(1)		(123)	(25)		(127)
Net cash flows from financing activities		(2,612)		(1,875)	(4,595)		(1,620)
NET INCREASE (DECREASE) IN CASH, CASH EQUIVALENTS AND RESTRICTED CASH		(834)		(780)	(1,447)		81
CASH, CASH EQUIVALENTS AND RESTRICTED CASH, beginning of period		2,936		1,626	3,549		765
CASH, CASH EQUIVALENTS AND RESTRICTED CASH, end of period	\$	2,102	\$	846	\$ 2,102	\$	846
CASH PAID FOR INTEREST	\$	935	\$	1,051	\$ 1,985	\$	2,017
CASH PAID FOR TAXES	\$	31	\$	39	\$ 50	\$	43
			<u> </u>			÷	

CHARTER COMMUNICATIONS, INC. AND SUBSIDIARIES UNAUDITED SUMMARY OF OPERATING STATISTICS (in thousands, except per customer and penetration data)

	Approximate as of								
	_	June 30, 2020 (a)		March 31, 2020 (a)		cember 31, 2019 (a)	J	lune 30, 2019 (a)	
Footprint (b)									
Estimated Passings		52,714		52,418		52,154		51,619	
Penetration Statistics (c) Total Customer Relationship Penetration of Estimated Passings		57.8 %		56.7 %		56.1 %		55.5 %	
Customer Relationships (d)									
Residential		28,496		27,745		27,277		26,755	
Small and Medium Business		1,980		1,976		1,958 29,235		1,902	
Total Customer Relationships	_	30,476	_	29,721	=	29,233	_	28,657	
Quarterly Net Additions (Losses)		754		400		040		404	
Residential Small and Medium Business		751 4		468 18		240 28		164 39	
Total Customer Relationships		755		486		268		203	
Residential									
Primary Service Units ("PSUs")									
Internet		26,313		25,471		24,908		24,244	
Video		15,652		15,550		15,620		15,802	
Voice		9,398		9,360		9,443		9,808	
Quarterly Net Additions (Losses)									
Internet		842		563		313		221	
Video Voice		102 38		(70) (83)		(105) (152)		(150) (207)	
Single Play (e) Double Play (e)		12,552 9,021		12,099 8,655		11,741 8,377		11,354 7,709	
Triple Play (e)		6,923		6,991		7,159		7,703	
Single Play Penetration (f)		44.0 %		43.6 %		43.0 %		42.4 %	
Double Play Penetration (f)		31.7 %		31.2 %		30.7 %		28.8 %	
Triple Play Penetration (f)		24.3 %		25.2 %		26.2 %		28.8 %	
% Residential Non-Video Customer Relationships		45.1 %		44.0 %		42.7 %		40.9 %	
Monthly Residential Revenue per Residential Customer (g)	\$	110.82	\$	112.73	\$	113.79	\$	112.20	
Small and Medium Business									
PSUs Internet		1 702		1 775		1 756		1 701	
Internet Video		1,783 516		1,775 524		1,756 524		1,701 518	
Voice		1,169		1,162		1,144		1,097	
Quarterly Net Additions (Losses)									
Internet		8		19		26		37	
Video		(8)		_		4		9	
Voice		7		18		24		25	
Monthly Small and Medium Business Revenue per Customer (h)	\$	166.06	\$	168.83	\$	169.06	\$	170.42	
Mobile Lines									
Residential and Small and Medium Business Mobile Lines Net Additions		1,697 325		1,372 290		1,082 288		518 208	
Enterprise PSUs (i)									
Enterprise PSUs		270		269		267		258	
Net Additions		1		2		3		5	

- (a) We calculate the aging of customer accounts based on the monthly billing cycle for each account. On that basis, at June 30, 2020, March 31, 2020, December 31, 2019 and June 30, 2019, customers included approximately 124,500, 140,800, 154,200 and 152,900 customers, respectively, whose accounts were over 60 days past due, approximately 18,400, 12,500, 13,500 and 13,800 customers, respectively, whose accounts were over 90 days past due and approximately 10,400, 8,200, 10,000 and 15,800 customers, respectively, whose accounts were over 120 days past due. As detailed on page 6, our customer counts include those customers who connected as part of our Remote Education Offer and those customers who we have not disconnected in our normal timelines associated with our Keep Americans Connected Pledge.
- (b) Passings represent our estimate of the number of units, such as single family homes, apartment and condominium units and small and medium business and enterprise sites passed by our cable distribution network in the areas where we offer the service indicated. These estimates are based upon the information available at this time and are updated for all periods presented when new information becomes available. Passings in prior periods have been updated to reflect standardization of definitions and presentation among legacy companies.
- (c) Penetration represents residential and small and medium business customers as a percentage of estimated passings. Penetration excludes mobile-only customers.
- (d) Customer relationships include the number of customers that receive one or more levels of service, encompassing Internet, video and voice services, without regard to which service(s) such customers receive. Customers who reside in residential multiple dwelling units ("MDUs") and that are billed under bulk contracts are counted based on the number of billed units within each bulk MDU. Total customer relationships exclude enterprise and mobile-only customer relationships.
- (e) Single play, double play and triple play customers represent customers that subscribe to one, two or three of our cable service offerings, respectively, excluding mobile.
- (f) Single play, double play and triple play penetration represents the number of residential single play, double play and triple play cable customers, respectively, as a percentage of residential customer relationships, excluding mobile.
- (g) Monthly residential revenue per residential customer is calculated as total residential Internet, video and voice quarterly revenue divided by three divided by average residential customer relationships during the respective quarter. Monthly residential revenue per residential customers excludes mobile revenue and customers.
- (h) Monthly small and medium business revenue per small and medium business customer is calculated as total small and medium business quarterly revenue divided by three divided by average small and medium business customer relationships during the respective quarter. Monthly small and medium business revenue per small and medium customer excludes mobile revenue and customers.
- (i) Enterprise PSUs represents the aggregate number of fiber service offerings counting each separate service offering at each customer location as an individual PSU.

CHARTER COMMUNICATIONS, INC. AND SUBSIDIARIES UNAUDITED CUSTOMERS AND NET ADDITIONS ON COVID-19 OFFERS FOR THE QUARTER ENDED JUNE 30, 2020 (in thousands)

	Remote Education Offer (a)		Keep Americans Connected (b)	Seasonal Plan (c)	Total
Residential					
Customer Relationships	160		208	n/a	368
Internet PSUs	160		202	n/a	362
Video PSUs	58	(d)	148	n/a	206
Voice PSUs	46	(d)	90	n/a	136
Mobile Lines	10	(d)	8	n/a	18
Quarterly Net Additions					
Customer Relationships	41		207	n/a	248
Internet PSUs	41		201	n/a	242
Video PSUs	12	(d)	147	n/a	159
Voice PSUs	12	(d)	90	n/a	102
Mobile Lines	7	(d)	8	n/a	15
Small and Medium Business					
Customer Relationships	n/a		14	13	27
Internet PSUs	n/a		13	11	24
Video PSUs	n/a		6	13	19
Voice PSUs	n/a		11	8	19
Mobile Lines	n/a		_	_	_
Quarterly Net Additions					
Customer Relationships	n/a		14	8	22
Internet PSUs	n/a		13	7	20
Video PSUs	n/a		6	11	17
Voice PSUs	n/a		11	5	16
Mobile Lines	n/a		_	_	_
Residential and Small and Medium Business					
Customer Relationships	160		222	13	395
Internet PSUs	160		215	11	386
Video PSUs	58	(d)	154	13	225
Voice PSUs	46	(d)	101	8	155
Mobile Lines	10	(d)	8	_	18
Quarterly Net Additions					
Customer Relationships	41		221	8	270
Internet PSUs	41		214	7	262
Video PSUs	12	(d)	153	11	176
Voice PSUs	12	(d)	101	5	118
Mobile Lines	7	(d)	8	_	15
Enterprise PSUs					
Enterprise PSUs	n/a		1	9	10

- (a) The Remote Education Offer ("REO") represents residential customers receiving free Internet service by participating in Charter's free 60-day Internet offer available to households with K-12 and/or college students or educators who were not Spectrum Internet customers. This offer for new customers ended on June 30, 2020. These residential customers are generally eligible to purchase additional products and services (i.e. video, voice and mobile) at current promotional rates. Of the 448,000 Internet customers who were added as part of the REO through June 30, 2020 (of which 119,000 were added in March), 160,000 remained within their 60-day free period with 288,000 having rolled off the promotional period as of June 30, 2020. Nearly 90% of cumulative connects on the REO remained Internet customers as of July 27, 2020.
- (b) As part of our March 2020 pledge to the FCC which we extended through June 30, Keep Americans Connected ("KAC") represents customers who requested to not be disconnected from service due to COVID-19 related payment challenges and would have been disconnected under our normal collection policies during the pledge period. Approximately 600,000 residential customers and 100,000 SMB customers had requested protection from disconnection, of which at the peak of the program, 208,000 and 14,000, respectively, would have been disconnected under our normal collection policies. Approximately 30% of the KAC customer bills were current, and over 60% were making partial or full payments. In an effort to assist these COVID-19 impacted customers with overdue balances, Charter waived \$76 million of residential, \$6 million of SMB and \$3 million of mobile receivables, each of which were recorded as a reduction to revenue in the second quarter. These customers no longer have an overdue balance and will be subject to Charter's standard collection practices going forward.
- (c) Represents small and medium businesses and Enterprise hospitality customers who have requested a reduced level of service and now pay a reduced price for their service due to temporary business closure or because these customers have reduced their service offering to their own customers.
- (d) Customers who are receiving free Internet Service as part of the REO who have subscribed to products in addition to Spectrum Internet (i.e., video, voice, mobile) during the 60-day Free Internet Offer. Billings are not deferred for these additional services.

CHARTER COMMUNICATIONS, INC. AND SUBSIDIARIES UNAUDITED RECONCILIATION OF NON-GAAP MEASURES TO GAAP MEASURES (dollars in millions)

	Three Months Ended June 30,				Six Months Ended June 30,					
		2020		2019		2020		2019		
Net income attributable to Charter shareholders	\$	766	\$	314	\$	1,162	\$	567		
Plus: Net income attributable to noncontrolling interest		110		72		181		136		
Interest expense, net		957		945		1,937		1,870		
Income tax expense		166		84		195		203		
Depreciation and amortization		2,428		2,500		4,925		5,050		
Stock compensation expense		90		82		180		167		
Loss on extinguishment of debt		36		_		63		_		
(Gain) loss on financial instruments, net		(64)		119		254		82		
Other pension benefits, net		(11)		(9)		(21)		(18)		
Other, net		11		78		9		183		
Adjusted EBITDA (a)		4,489		4,185		8,885		8,240		
Less: Mobile revenue		(310)		(158)		(568)		(298)		
Plus: Mobile costs and expenses		413		277		787		537		
Cable Adjusted EBITDA	\$	4,592	\$	4,304	\$	9,104	\$	8,479		
Net cash flows from operating activities	\$	3,529	\$	2,761	\$	6,749	\$	5,447		
Less: Purchases of property, plant and equipment		(1,877)		(1,597)		(3,338)		(3,262)		
Change in accrued expenses related to capital expenditures		214		(52)		(174)		(428)		
Free cash flow		1,866		1,112		3,237		1,757		
Plus: Mobile net cash outflows from operating activities		108		204		281		407		
Purchases of mobile property, plant and equipment		125		93		212		181		
Cable free cash flow	\$	2,099	\$	1,409	\$	3,730	\$	2,345		

⁽a) See page 1 of this addendum for detail of the components included within Adjusted EBITDA.

The above schedule is presented in order to reconcile Adjusted EBITDA, cable Adjusted EBITDA, free cash flow and cable free cash flow, non-GAAP measures, to the most directly comparable GAAP measures in accordance with Section 401(b) of the Sarbanes-Oxley Act.

CHARTER COMMUNICATIONS, INC. AND SUBSIDIARIES UNAUDITED CAPITAL EXPENDITURES (dollars in millions)

	Three Months Ended June 30,					Six Months Ended June 30,				
	2020			2019		2020		2019		
Customer premise equipment (a)	\$	518	\$	492	\$	981	\$	1,057		
Scalable infrastructure (b)		385		223		555		520		
Line extensions (c)		422		363		765		684		
Upgrade/rebuild (d)		155		155		284		286		
Support capital (e)		397		364		753		715		
Total capital expenditures		1,877		1,597		3,338		3,262		
Less: Mobile capital expenditures		(125)		(93)		(212)		(181)		
Cable capital expenditures	\$	1,752	\$	1,504	\$	3,126	\$	3,081		
Capital expenditures included in total related to: Commercial services	\$	323	\$	324	\$	584	\$	629		

- (a) Customer premise equipment includes costs incurred at the customer residence to secure new customers and revenue generating units, including customer installation costs and customer premise equipment (e.g., set-top boxes and cable modems).
- (b) Scalable infrastructure includes costs, not related to customer premise equipment, to secure growth of new customers and revenue generating units, or provide service enhancements (e.g., headend equipment).
- (c) Line extensions include network costs associated with entering new service areas (e.g., fiber/coaxial cable, amplifiers, electronic equipment, make-ready and design engineering).
- (d) Upgrade/rebuild includes costs to modify or replace existing fiber/coaxial cable networks, including betterments.
- (e) Support capital includes costs associated with the replacement or enhancement of non-network assets due to technological and physical obsolescence (e.g., non-network equipment, land, buildings and vehicles).